

DEPARTMENT OF TRANSPORTATION  
NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C. 20591

July 25, 1967

A-67-22

IN REPLY  
REFER TO: SB-1-96

- Honorable William F. McKee  
Administrator  
Federal Aviation Administration  
Department of Transportation  
Washington, D. C. 20590

Dear General McKee:

The Board's investigation of the accident involving Mohawk Airlines BAC 1-11, N116J, aircraft near Blossburg, Pennsylvania, on June 23, 1967, has revealed that an intense fire at and adjacent to the vertical fin rear spar to top fuselage juncture destroyed the rudder and elevator control systems and inflicted appreciable structural damage. The inflight fire area limits were established to be above the APU compartment between fuselage stations 936 and 958 and extending up and into the rudder and vertical fin area.

The loss of control and critical structural damage to the vertical fin are directly attributable to the fire path through a hole in the top of the aluminum alloy fuselage skin in the area of fuselage station 936. The hole provides for passage of hydraulic lines to the rudder power control units. To provide effective isolation of the vertical fin and particularly the area aft of the rear spar wherein is located electrical circuits, hydraulic lines and mechanical devices for directional and longitudinal control, it is recommended that a fireproof barrier of appropriate width be provided at the fuselage top skin between fuselage stations 936 and 958. Also, it is recommended that the aluminum alloy wall separating the hydraulic bay and the APU air intake plenum chamber be replaced with suitable fireproof material.

As of this time we have not identified the ignition source of the inflight fire; however, all possible sources are being considered. In this category, an obvious possible source of heat and flame in the fire area is the auxiliary power unit. Although our evidence does not point to the APU as a source of ignition, as a precautionary measure it is recommended that, until such time as suitable barriers as recommended above are provided, inflight use of the APU be restricted. We are

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Honorable William F. McKee (2)

informed that Mohawk Airlines has initiated the precautionary measure of restricted APU use inflight on their BAC 1-11 aircraft without significant operational problems.

Mr. Edward Wood of your FS-120 is a member of the fire study committee that is conducting the BAC 1-11 aircraft fire investigation and is acquainted with the details of the investigation to date. If further information or assistance is needed please feel free to contact personnel of our Engineering Division.

Sincerely yours,

/s/ Joseph J. O'Connell, Jr.

Joseph J. O'Connell, Jr.  
Chairman